

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An electronic circuit device comprising:

~~a plurality of electronic circuit substrates over which either of an optical shutter or an optical sensor is disposed, or both of them are disposed,~~

~~wherein said plurality of electronic circuit substrates comprise transparent substrates,~~

~~an optical signal is inputted from an external, said optical signal which has been inputted is inputted into an optical shutter or an optical sensor over a transparent substrate which is different from said transparent substrates after said optical signal has been transmitted through at least one or more of said transparent substrates,~~

~~said optical shutter controls transmission and non-transmission of said optical signal, and~~

~~said optical sensor converts said optical signal into an electric signal by an electronic circuit provided over a same transparent substrate as said optical sensor~~

a first light source;

a second light source;

a first substrate;

a first optical shutter provided over said first substrate;

a second substrate;

a second optical shutter provided over said second substrate;

a third substrate;

a first optical sensor provided over said third substrate,

a second optical sensor provided over said third substrate;

wherein a first light emitted from said first light source is inputted into said first optical shutter, and transmission and non-transmission of said first light are controlled by said first optical shutter, and

wherein in a case where said first optical shutter transmits said first light, the transmitted first light is inputted into said first optical sensor to convert said first light into a first electric signal by a first electronic circuit provided over said third substrate,

wherein a second light emitted from said second light source is transmitted through said first substrate and is inputted into said second optical shutter, and transmission and non-transmission of said second light are controlled by said second optical shutter, and

wherein in a case where said second optical shutter transmits said second light, the transmitted second light is inputted into said second optical sensor to convert said second light into a second electric signal by a second electronic circuit provided over said third substrate.

2. (Original) A device according to claim 1, wherein said electronic circuit comprises a thin film transistor.

3. (Original) A device according to claim 1, wherein said electronic circuit comprises a thin film transistor and a single crystal IC (Integrated Circuit) chip.

4. (Currently Amended) A device according to claim 1, wherein at least one of said first optical sensor and said second optical sensor is an amorphous silicon photodiode, or an amorphous silicon phototransistor.

5. (Currently Amended) A device according to claim 1, wherein at least one of said first optical sensor and said second optical sensor is a polysilicon (p-Si) photodiode, or a polysilicon phototransistor.

6. (Currently Amended) A device according to claim 1, wherein at least one of said first optical sensor and said second optical sensor is a single crystal silicon photodiode, or a single crystal silicon phototransistor.

7. (Currently Amended) A device according to claim 1, wherein at least one of said first optical shutter and said second optical shutter comprises a liquid crystal which is sandwiched between two sheets of transparent substrates.

8. (Canceled)

9. (Currently Amended) An electronic circuit device comprising:
~~a plurality of transparent substrates over which either of an optical shutter or an optical sensor is disposed, or both of them are disposed,~~
~~wherein said plurality of transparent substrates have been laminated,~~
~~an optical signal is inputted from an external, said optical signal which has been inputted is inputted into an optical shutter or an optical sensor over a transparent substrate which is different from said transparent substrates after said optical signal has been transmitted through at least one or more of said transparent substrates,~~
~~said optical shutter controls transmission and non transmission of light, and~~
~~said optical sensor converts said optical signal into an electric signal by an electronic circuit provided over a same transparent substrate as said optical sensor~~
a first light source;
a second light source;
a first substrate;
a first optical shutter provided over said first substrate;
a second optical shutter provided over said first substrate;
a second substrate;

a first optical sensor provided over said second substrate;

a third substrate;

a second optical sensor provided over said third substrate,

wherein a first light emitted from said first light source is inputted into said first optical shutter, and transmission and non-transmission of said first light are controlled by said first optical shutter,

wherein in a case where said first optical shutter transmits said first light, the transmitted first light is inputted into said first optical sensor to convert said first light into a first electric signal by a first electronic circuit provided over said second substrate,

wherein a second light emitted from said second light source is inputted into said second optical shutter, and transmission and non-transmission of said second light are controlled by said second optical shutter, and

wherein in a case where said second optical shutter transmits said second light, the transmitted second light is inputted into said second optical sensor to convert said second light into a second electric signal by a second electronic circuit provided over said third substrate.

10. (Original) A device according to claim 9, wherein said electronic circuit comprises a thin film transistor.

11. (Original) A device according to claim 9, wherein said electronic circuit comprises a thin film transistor and a single crystal IC (Integrated Circuit) chip.

12. (Currently Amended) A device according to claim 9, wherein at least one of said first optical sensor and said second optical sensor is an amorphous silicon photodiode, or an amorphous silicon phototransistor.

13. (Currently Amended) A device according to claim 9, wherein at least one of said first optical sensor and said second optical sensor is a polysilicon (p-Si) photodiode, or a polysilicon phototransistor.

14. (Currently Amended) A device according to claim 9, wherein at least one of said first optical sensor and said second optical sensor is a single crystal silicon photodiode, or a single crystal silicon phototransistor.

15. (Currently Amended) A device according to claim 9, wherein at least one of said first optical shutter and said second optical shutter comprises a liquid crystal which is sandwiched between two sheets of transparent substrates.

16. (Canceled)

17. (Currently Amended) An electronic circuit device comprising a plurality of transparent substrates over which either of an optical shutter or an optical sensor is disposed, or both of them are disposed,

~~wherein an optical signal is directly inputted into said optical shutter from an external or said optical signal is inputted into said optical shutter after said optical signal has been transmitted through said transparent substrate, in a case where said optical shutter has transmitted said optical signal, the transmitted optical signal is directly inputted into said optical sensor or inputted into said optical sensor after said optical signal has been transmitted through a transparent substrate which is different from said transparent substrates:~~

a first light source;

a second light source;

a first substrate;

a first optical shutter provided over said first substrate;

a second substrate;

a first optical sensor provided over said second substrate;

a second optical shutter provided over said second substrate;

a third substrate; and

a second optical sensor provided over said third substrate,

wherein a first light emitted from said first light source is inputted into said first optical shutter, and transmission and non-transmission of said first light are controlled by said first optical shutter,

wherein in a case where said first optical shutter transmits said first light, the transmitted first light is inputted into said first optical sensor to convert said first light into a first electric signal by a first electronic circuit provided over said second substrate,

wherein a second light emitted from said second light source is transmitted through said first substrate and inputted into said second optical shutter, and transmission and non-transmission of said second light are controlled by said second optical shutter,

wherein in a case where said second optical shutter transmits said second light, the transmitted second light is inputted into said second optical sensor to convert said second light into a second electric signal by a second electronic circuit provided over said third substrate.

18. (Original) A device according to claim 17, wherein said electronic circuit comprises a thin film transistor.

19 (Original) A device according to claim 17, wherein said electronic circuit comprises a thin film transistor and a single crystal IC (Integrated Circuit) chip.

20. (Currently Amended) A device according to claim 17, wherein at least one of said first optical sensor and said second optical sensor is an amorphous silicon photodiode, or an amorphous silicon phototransistor.

21. (Currently Amended) A device according to claim 17, wherein at least one of said first optical sensor and said second optical sensor is a polysilicon (p-Si) photodiode, or a polysilicon phototransistor.

22. (Currently Amended) A device according to claim 17, wherein at least one of said first optical sensor and said second optical sensor is a single crystal silicon photodiode, or a single crystal silicon phototransistor.

23. (Currently Amended) A device according to claim 17, wherein at least one of said first optical shutter and said second optical shutter comprises a liquid crystal which is sandwiched between two sheets of transparent substrates.

24. (Canceled)

25. (Currently Amended) An electronic circuit device comprising:
~~a plurality of transparent substrates over which either of an optical shutter or an optical sensor is disposed, or both of them are disposed,~~
~~wherein said optical shutter is controlled by an electronic circuit over a transparent substrate,~~

~~an optical signal inputted from an external is inputted into said optical shutter, and whether said optical signal has been transmitted or not is decided, thereby taking out an output signal of said electronic circuit~~

a first light source;

a second light source;

a first substrate;

a first optical shutter provided over said first substrate;

a second substrate;

a first optical sensor provided over said second substrate;

a second optical shutter provided over said second substrate,

a second optical sensor provided over said first substrate;

wherein a first light emitted from said first light source is inputted into said first optical shutter, and transmission and non-transmission of said first light are controlled by said first optical shutter,

wherein in a case where said first optical shutter transmits said first light, the transmitted first light is inputted into said first optical sensor to convert said first light into a first electric signal by a first electronic circuit provided over said second substrate,

wherein a second light emitted from said second light source is transmitted through said second substrate and is inputted into said second optical shutter, and transmission and non-transmission of said second light are controlled by said second optical shutter, and

wherein in a case where said second optical shutter transmits said second light, the transmitted second light is inputted into said second optical sensor to convert said second light into a second electric signal by a second electronic circuit provided over said first substrate.

26. (Original) A device according to claim 25, wherein said electronic circuit comprises a thin film transistor.

27. (Original) A device according to claim 25, wherein said electronic circuit comprises a thin film transistor and a single crystal IC (Integrated Circuit) chip.

28. (Currently Amended) A device according to claim 25, wherein at least one of said first optical sensor and said second optical sensor is an amorphous silicon photodiode, or an amorphous silicon phototransistor.

29. (Currently Amended) A device according to claim 25, wherein at least one of said first optical sensor and said second optical sensor is a polysilicon (p-Si) photodiode, or a polysilicon phototransistor.

30. (Currently Amended) A device according to claim 25, wherein at least one of said first optical sensor and said second optical sensor is a single crystal silicon photodiode, or a single crystal silicon phototransistor.

31. (Currently Amended) A device according to claim 25, wherein at least one of said first optical shutter and said second optical shutter comprises a liquid crystal which is sandwiched between two sheets of transparent substrates.

32. (Canceled)

33. (Currently Amended) An electronic circuit device comprising:
~~a plurality of transparent substrates over which either of an optical shutter or an optical sensor is disposed, or both of them are disposed,~~
~~wherein said transparent substrates have been laminated,~~
~~said optical shutter is controlled by an electronic circuit provided over said transparent substrate,~~
~~an optical signal inputted from an external is inputted into said optical shutter, and whether said optical signal has been transmitted or not is decided, thereby taking out an output signal of said electronic circuit~~
a first light source;

a second light source;

a first substrate;

a first optical shutter provided over said first substrate;

a second substrate;

a second optical shutter provided over said second substrate;

a third substrate;

a first optical sensor provided over said third substrate; and

a second optical sensor provided over said first substrate;

wherein a first light emitted from said first light source is inputted into said first optical shutter, and transmission and non-transmission of said first light are controlled by said first optical shutter,

wherein in a case wherein said first optical shutter transmits said first light, the transmitted first light is inputted into said first optical sensor to convert said first light into a first electric signal by a first electronic circuit provided over said third substrate,

wherein a second light emitted from said second light source is transmitted through said third substrate and inputted into said second optical shutter, and transmission and non-transmission of said second light are controlled by said second optical shutter, and

wherein in a case where said second optical shutter transmits said second light, the transmitted second light is inputted into said second optical sensor to convert said second light into a second electric signal by a second electronic circuit provided over said first substrate.

34. (Original) A device according to claim 33, wherein said electronic circuit comprises a thin film transistor.

35. (Original) A device according to claim 33, wherein said electronic circuit comprises a thin film transistor and a single crystal IC (Integrated Circuit) chip.

36. (Currently Amended) A device according to claim 33, wherein at least one of said first optical sensor and said second optical sensor is an amorphous silicon photodiode, or an amorphous silicon phototransistor.

37. (Currently Amended) A device according to claim 33, wherein at least one of said first optical sensor and said second optical sensor is a polysilicon (p-Si) photodiode, or a polysilicon phototransistor.

38. (Currently Amended) A device according to claim 33, wherein at least one of said first optical sensor and said second optical sensor is a single crystal silicon photodiode, or a single crystal silicon phototransistor.

39. (Currently Amended) A device according to claim 33, wherein at least one of said first optical shutter and said second optical shutter comprises a liquid crystal which is sandwiched between two sheets of transparent substrates.

40.-42. (Canceled)